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Aras Community Solution Add-on:

30-Aug-2013

Document Hierarchies

Add-on-Solution Package v2-1

Overview – Solution Package

„Document Hierarchies“

- ✓ Adds new Item Types to build Document Hierarchy Structures linking to individual documents
- ✓ Much like Bills Of Materials, Document Hierarchies are versionable and operate on a life cycle (Preliminary -> Released -> Obsolete)
- ✓ A separate ItemType „Document Book“, also versionable, is used to group „Document Sections“ hierarchically each "Document Section" can have owners and co-owners for extended access control. Life cycles drive "Book" and "Sections" from 'Preliminary' to 'Released' to 'Obsolete'
- ✓ „Dummy“ TOC Item Types can be used to set up a direct access to a 'Document Book' from the TOC. Such as a „Quality Handbook“ or an „Operations Manual“ or more. TOC-Access on these items define who have access to these "Books" from the TOC directly. If displayed from TOC the effectivity is fixed to "Released". This package includes the example for a „Quality Handbook“
- ✓ Owners and Co-Owners are allowed to do "Manual Release" of the structure (down) for „Document Books“ and on every level of „Document Sections“.
- ✓ Manual Revisioning is also allowed for Owners. If revisioning is started on a node within the document hierarchy, then all nodes on the path to the top (including to „Document Book“) will be automatically revisioned, as well. (up)
- ✓ Linked Documents must still follow their own release and revisioning process.
- ✓ Hierarchy nodes linking to documents will show released documents only, if the effectivity view on the grid is set to „Released versions of Rev“. Else the current version of linked documents will be shown.
- ✓ If a newer released version of a linked document is available on a "Released" Document Section, an icon on the grid will indicate this. In this case the "Owner" of the "Document Section" can run an action to pull in this latest released document.

What's new in this version

V2-1

- ✓ Internationalization (toolbar, menus, messages),
- ✓ language effectivity on Section-Document relationship

V2-0

- ✓ Common grid handler (utilities) improvements
- ✓ Improved grid views, Improved versioning and access controls, misc. Renamings ("Document Collection" is now "Document Book")
- ✓ Renamed Effectivity views on grid (Current Version of Rev)
- ✓ TOC variable can specify a book's item_number and (optionally) a specific major_rev now.
- ✓ added a grid column to highlight when document of released 'Sections' have newer generations (not is_current)

Version History

Versions:

V1-1 Initial prototypes and packaging

V1-3 First community release

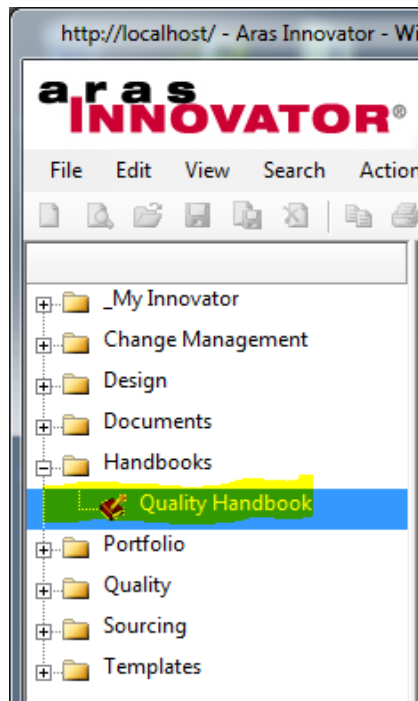
Installation

- Use the PackageImportExportUtilities to import the package „[Document Hierarchies v2-1](#)“
- Extract package to directory accessible to the import tool.
- Start the import tool, enter the URL to your Aras environment
- Import will require 3 import cycles
 - 0-Common Utilities v1-8 (partial) → import as „**admin**“, use option „**merge**“.
 - 1-Innovator Core Extensions → import as „**root**“, use option „**merge**“.
 - 2-Document Hierarchy Solution → import as „**admin**“, use option „**merge**“.
 - 3-nash Updates → use Nash Tool
- To add additional icons used on the tree grid you must open folder „_CodeTreeOverlays“ of this package and copy the folder „innovator“ to your Aras installation folders (CodeTree)
- Als see „ReadMe.txt“ inside package for more installation details

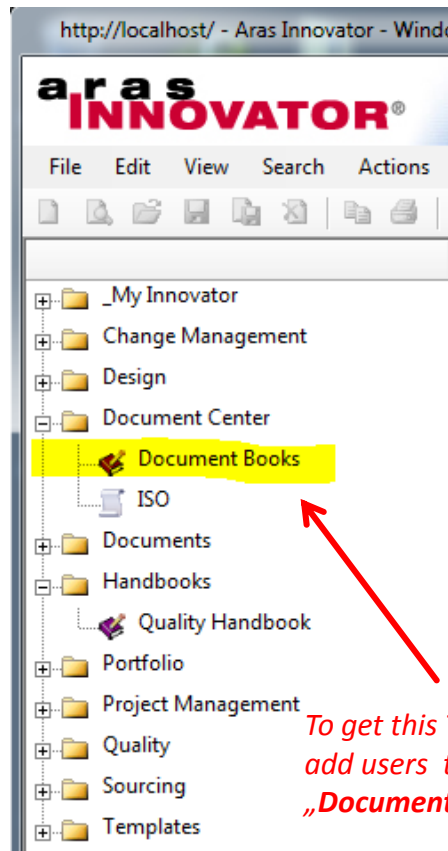
TOC Access

Administrators

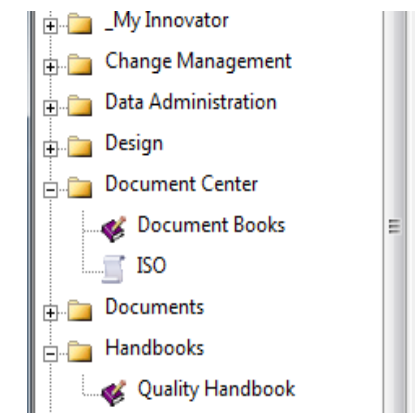
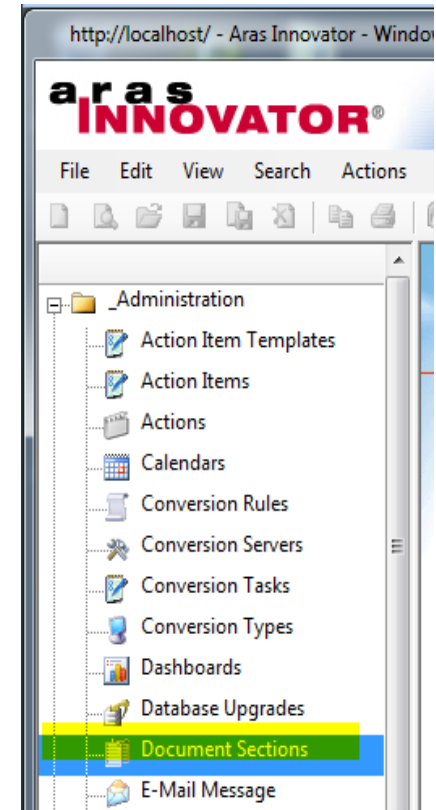
All Employees



Administrators & Document Book Management



*To get this TOC entry
add users to Identity:
„Document Book Management“*



Latest Released version of a „Book“ and its related Document Hierarchy can be exposed on a separate TOC.

Permissions can be assigned to the TOC Item (i.e. All Employees)

Number and Rev of related „Book“ of this Hierarchy (defined by TOCDBK_XXX variables)

http://localhost/ - Aras Innovator - Windows Internet Explorer

aras INNOVATOR®

File Edit View Search Actions Reports Tools Help

Document Number Pos Files Name Rev... Gen Release Date Owner Type Description

1000 - Introduction	--	--	--	--	A	--	--	Innovator Admin	--	
2000 - Quality Assurance	--	--	--	--	A	--	--	Innovator Admin	--	
3000 - R&D Procedures	--	--	--	--	C	--	--	Innovator Admin	--	
DD-10200-2345	10			Extruder Retrofit Specifications	A	2	8/19/2013	Demo User	Specification	xxx
D-00001	20			Market Requirements Document	A	2	3/20/2012	Innovator Admin	Specification	Market requirements spec
4000 - Manufacturing Procedures	--	--	--	--	A	--	--	Innovator Admin	--	
5000 - Supply Chain Procedures	--	--	--	--	A	--	--	Innovator Admin	--	
6000 - Marketing Procedures	--	--	--	--	D	--	--	Innovator Admin	--	

Technical specs

Manufacturer	MakerBot Industries
Model	Thing-O-Matic
Technology	Thermoplastic extrusion
Price	\$1099 for the Thing-O-Matic Kit which includes our new Stepstruder MK7
Annual Service	This is a hot rod style device on the cutting edge of 3D printing technology and like a hotrod, you'll have to oil it and do occasional maintenance. There is no service warranty.
Machine Size	It's 12"x12"x16" LxWxH
Weight	Approx. 12 lbs or 5 kg.
Materials	ABS or PLA Plastics. The Plastruder MK5 and below use 3mm filament. The Stepstruder MK6 can take both 3mm and 1.75mm filament and the new Stepstruder MK7 uses 1.75mm filament exclusively.
Material Cost	See the store for current pricing. But it's not expensive.

Click on icon to open attached file directly.

Administrators can set up variable „File Ext to View single File“ To maintain a list of possible file extensions (comma separated)

Access To „Current Version“ of a „Book“ with its Hierarchy and Documents. For Owners/Co-Owners of a „Book“

http://localhost/ - Aras Innovator - Windows Internet Explorer

aras INNOVATOR® Tuesday, August 20, 2013 3:56 AM

File Edit View Search Actions Reports Tools Help

Simple Search Page Size: 50 Max Results: 500 Current As Of:

Number	Name	Rev	Owner [...]	Classification	Status	Description	Doc Hier...	Co-Owners [...]	Last Modified By [...]	Last Modified [...]	Release D
DBK-00014	QMB TEST 200	A	Innovator Admin	Book	Preliminary	xx			Innovator Admin	8/19/2013	
DBK-00015	QMB TEST 3 Add	A	Innovator Admin	Book	Preliminary	x			Innovator Admin	8/19/2013	
DBK-00013	QMB TEST	A	Innovator Admin	Book	Preliminary	xx			Innovator Admin	8/19/2013	
DCL00010	Quality Management Handb...	D	Innovator Admin	Handbook	Released			Demo User	Innovator Admin	8/19/2013	8/19/2013

Document Book

Created By: Innovator Admin
Created On: 8/19/2013
Modified By: Innovator Admin
Modified On: 8/19/2013

http://localhost/ - Document Book - DCL00010 Quality Management Handbook (read only) - Windows Internet Explorer

File Edit Views Search Actions Reports Tools Help

Number: DCL00010 Name: Quality Management Handbook
Classification: Handbook
Rev: D Status: Released
Release Date: 8/19/2013
Owner: Innovator Admin
Co-Owners: Demo User

Doc Hierarchy Icon Doc Hierarchy Open Icon

Document Hierarchy Top Sections

Document Number	Pos	Lck	Files	Name	Rev...	Gen	State	Changes	Release Date	Owner	Type	Description
1000 - Introduction	--	--	--		A	--	Released	--	--	Innovator Admin	--	
2000 - Quality Assurance	--	--	--		A	--	Released	--	--	Innovator Admin	--	
3000 - R&D Procedures	--	--	--		C	--	Released	--	--	Innovator Admin	--	
DD-10200-2345	10			Extruder Retrofit Specifications	A	2	Released					
D-00001	20			Market			Released					
4000 - Manufacturing Procedures	--	--	--				Released					
5000 - Supply Chain Procedures	--	--	--				Released					
6000 - Marketing Procedures	--	--	--				Released					

Context menu to allow Release and Revision Management for node owners. To revise a node you must be owner or in co-owners of „Document Book“, as well.

Ready Rows in view: 8

Document Book Actions

Owners of Document Book can revise and release the books separately.
Or, choose to release with the full Document Hierarchy structure.

Document Book

Number: DCL00010
Classification: Handbook

Description:

Doc Hierarchy Icon: [Icon]
Doc Hierarchy Open Icon: [Icon]

Release Date: 8/19/2013
Owner: [Innovator Admin](#)
Co-Owners: [Demo User](#)

Document Hierarchy | Top Sections

Current Version of R: [Dropdown]

Document Number	Pos	Lck	Files	Name	Revi...	Gen	State	Changes	Release Date
1000 - Introduction	--	--	--		A	--	Released		--
2000 - Quality Assurance	--	--	--		A	--	Released		--
3000 - R&D Procedures	--	--	--		C	--	Released		--
DD-10200-2345	10		[Icon]	Extruder Retrofit Specifications	A	2	Released	<input type="checkbox"/>	8/19/2013
D-00001	20		[Icon]	Market Requirements Document	A	2	Released	<input type="checkbox"/>	3/20/2012
4000 - Manufacturing Procedures	--	--	--		A	--	Released		--
5000 - Supply Chain Procedures	--	--	--		A	--	Released		--
6000 - Marketing Procedures	--	--	--		D	--	Released		--

Ready | Rows in view: 8 | **INNOVATOR**

Simulate Latest Released option

http://localhost/ - Document Collection - DCL00001 QUALITY MANAGEMENT HANDBOOK (read only) - Windows Internet Explorer

File Edit Views Search Actions Reports Tools Help

Document Collection

Number: DCL00001
Name: QUALITY MANAGEMENT HANDBOOK
Rev: B Status: Preliminary
Classification: Book
Description: COLLECTION
Release Date:
Owner: Innovator Admin
Co-Owners:

Doc Hierarchy Icon Doc Hierarchy Open Icon

Document Hierarchy Top Nodes

+ - This Revision

Document Number	Pos	Lck	Name	Revi...	gene...	State	Files	Changes	Release Date	Owner
1000-CH - Chapter 1	--	--	--	B	--	Preliminary			--	Innovator Admin
QMB-1000	10	--	Company Introduction	A	2	Released	<input checked="" type="checkbox"/>	<input type="checkbox"/>	11/9/2012	Innovator Admin
1100-S - Section 1-1	--	--	--	A	--	Preliminary			--	Innovator Admin
2000-CH - Chapter 2	--	--	--	A	--	Released			--	Innovator Admin
QMB-10001	10	--	Process Definitions	A	2	Released	<input checked="" type="checkbox"/>	<input type="checkbox"/>	11/9/2012	Innovator Admin
1100-S - Section 2-2	--	--	--	A	--	Released			--	Innovator Admin
QMB-10010	10	--		A	--	Released			--	Innovator Admin
QMB-10020	20	--		A	--	Released			--	Innovator Admin
1200-S - Section 2-2	--	--	--	A	--	Released			--	Innovator Admin

http://localhost/ - Document Collection - DCL00001 QUALITY MANAGEMENT HANDBOOK (read only) - Windows Internet Explorer

File Edit Views Search Actions Reports Tools Help

Document Collection

Number: DCL00001
Name: QUALITY MANAGEMENT HANDBOOK
Rev: B Status: Preliminary
Classification: Book
Description: COLLECTION
Release Date:
Owner: Innovator Admin
Co-Owners:

Doc Hierarchy Icon Doc Hierarchy Open Icon

Document Hierarchy Top Nodes

+ - Latest Releases

Document Number	Pos	Lck	Name	Revi...	gene...	State	Files	Changes	Release Date	Owner
1000-CH - Chapter 1	--	--	--	A	--	Released			--	Innovator Admin
QMB-1000	10	--	Company Introduction	A	2	Released	<input checked="" type="checkbox"/>	<input type="checkbox"/>	11/9/2012	Innovator Admin
2000-CH - Chapter 2	--	--	--	A	--	Released			--	Innovator Admin
QMB-10001	10	--	Process Definitions	A	2	Released	<input checked="" type="checkbox"/>	<input type="checkbox"/>	11/9/2012	Innovator Admin
1100-S - Section 2-2	--	--	--	A	--	Released			--	Innovator Admin
QMB-10010	10	--	Product Development Process	A	3	Released	<input checked="" type="checkbox"/>	<input type="checkbox"/>	11/9/2012	Innovator Admin
QMB-10020	20	--	Product Manufacturing Process	A	2	Released	<input checked="" type="checkbox"/>	<input type="checkbox"/>	11/9/2012	Innovator Admin
1200-S - Section 2-2	--	--	--	A	--	Released			--	Innovator Admin

Administrators:

Set up Navigation to Document Books from TOC (1)

http://localhost/ - ItemType - TOC Quality Handbook (read only) - Windows Internet Explorer

File Edit Views Search Actions Reports Tools Help

Name
TOC Quality Handbo

Singular Label
TOC Quality Handbo

Plural Label
Quality Handbook

Small Icon

History Template

Default Structure View

Versioning
Versionable ☐
Discipline Automatic
Revisions Default

Unlock On Logou
Dependent
Is Relationship
Enforce Discover

ItemType

Class Structure

Show Parameters Tab
When Populated

Properties RelationshipTypes Views Serv

Actions Pick Related

Name	Category
All Employees	Documents

Ready

Create a „dummy“ Item Type
to hold the TOC View

http://localhost/ - ItemType - TOC Quality Handbook (read only) - Windows Internet Explorer

File Edit Views Search Actions Reports Tools Help

Name
TOC Quality Handbo

Singular Label
TOC Quality Handbo

Plural Label
Quality Handbook

Small Icon

Large ICON

History Template

Default Structure View

Versioning
Versionable ☐
Discipline Automatic
Revisions Default

Unlock On Logou
Dependent
Is Relationship
Enforce Discover
Use Src Access
Allow Private Per

Search
Auto Search ☐ Default Page Size
Max Records

Implementation Type
Single Item ☒ Poly Item ☐ Federated Item

Properties RelationshipTypes Views Server Events Actions Life Cycles Workflows TOC Access TOC View Client Events

Actions Pick Related

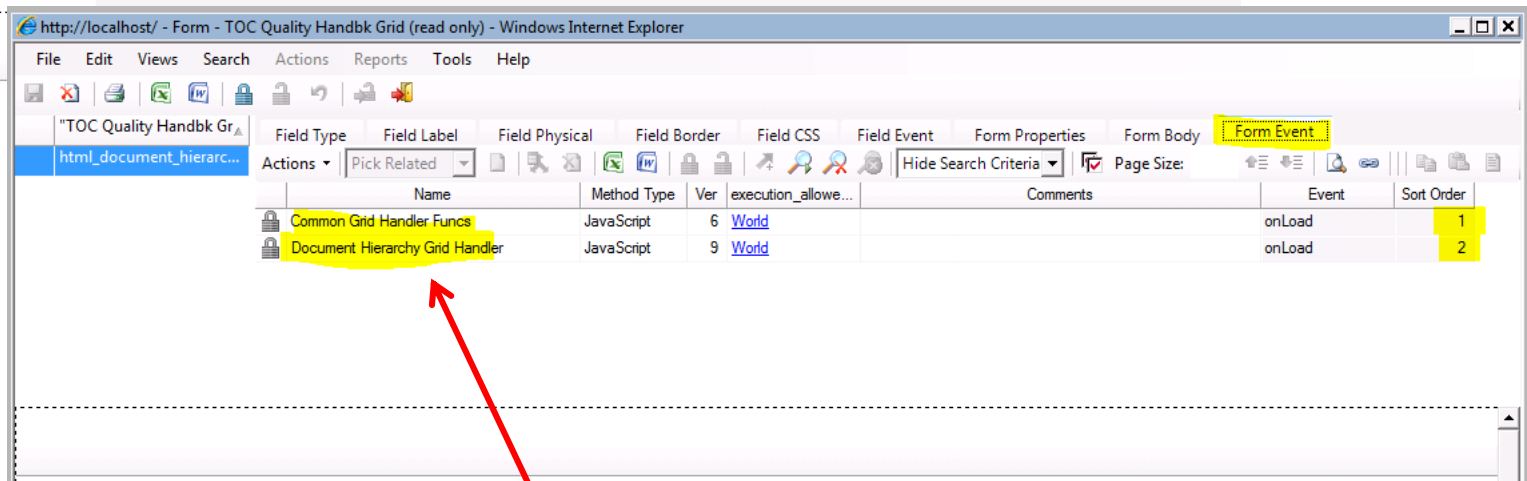
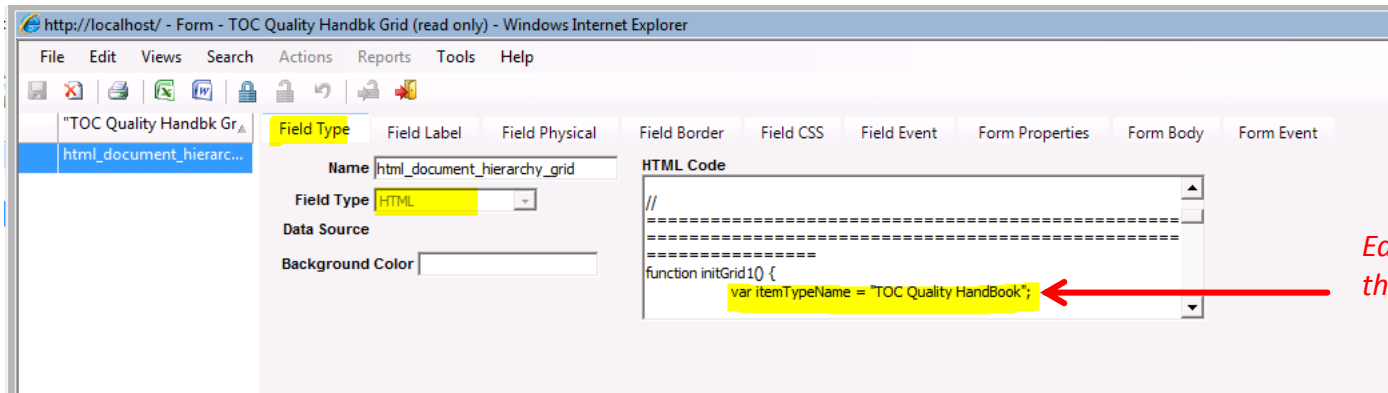
Name	Start Page	Parameters	Form [...]
World			TOC Quality Handbk Grid

Ready

Items 1-1 of 1. Page 1 of 1

INNOVATOR

Set up Navigation to Document Books from TOC (2)



Set up Navigation to Document Books from TOC (3)

The screenshot shows the Aras Innovator web application in a Windows Internet Explorer browser. The left sidebar contains a tree view with categories like SQLs, System Events, Teams, Users, Variables (selected), Vaults, Viewers, Web Service Configuration, Workflow Maps, and Workflow Processes. The main content area displays the 'Variable' configuration for 'TOCBK_TOC Quality Handbook'. The variable is created by 'Innovator Admin' on '5/24/2012' and modified on '8/20/2013'. The 'Value' field is set to 'DCL00010' and the 'Default Value' is 'BookNumber,MajorRev'. A table below lists various system variables and their values.

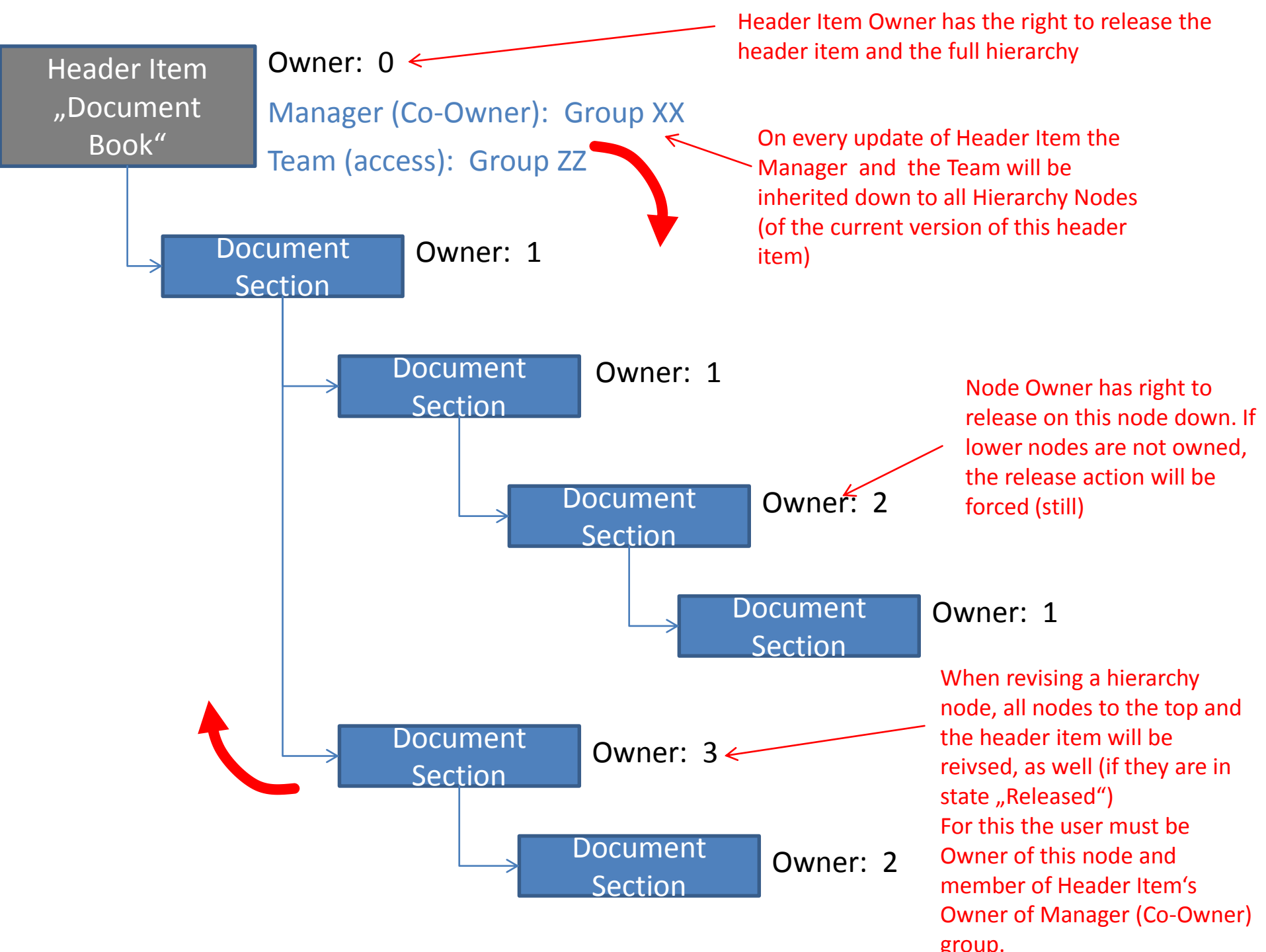
Name	Value	Default Value	Modified By [...]	Modified On [...]
Revision	1		Super User	12/8/2004
SystemEventLogLevel	0	0	Super User	6/10/2011
TOCBK_TOC Quality Handbook	DCL00010	BookNumber,Maj...	Innovator Admin	8/20/2013
TopHelpUrl			Super User	6/10/2011
User_pwd_digits_min_number		-1	Super User	6/10/2011
User_pwd_symbols_min_number		-1	Super User	6/10/2011
VersionBuild	5663		Super User	6/10/2011
VersionMajor	9		Super User	6/10/2011
VersionMinor	3		Super User	6/10/2011
VersionServicePack	SP1		Super User	2/1/2012
VersionServiceUpdate	0		Super User	6/10/2011
Workflow Map Patch	patched			2/27/2004
Workflow Process Patch	patched			2/27/2004

Below the main table, a smaller window titled 'Variable - TOCBK_TOC Quality Handbook (read only)' is shown. It displays the 'Name' field with the value 'TOCBK_TOC Quality Handbook' and the 'Value' field with the value 'DCL00010'. The 'Default Value' is 'BookNumber,MajorRev'. Red arrows point from the text on the right to these fields.

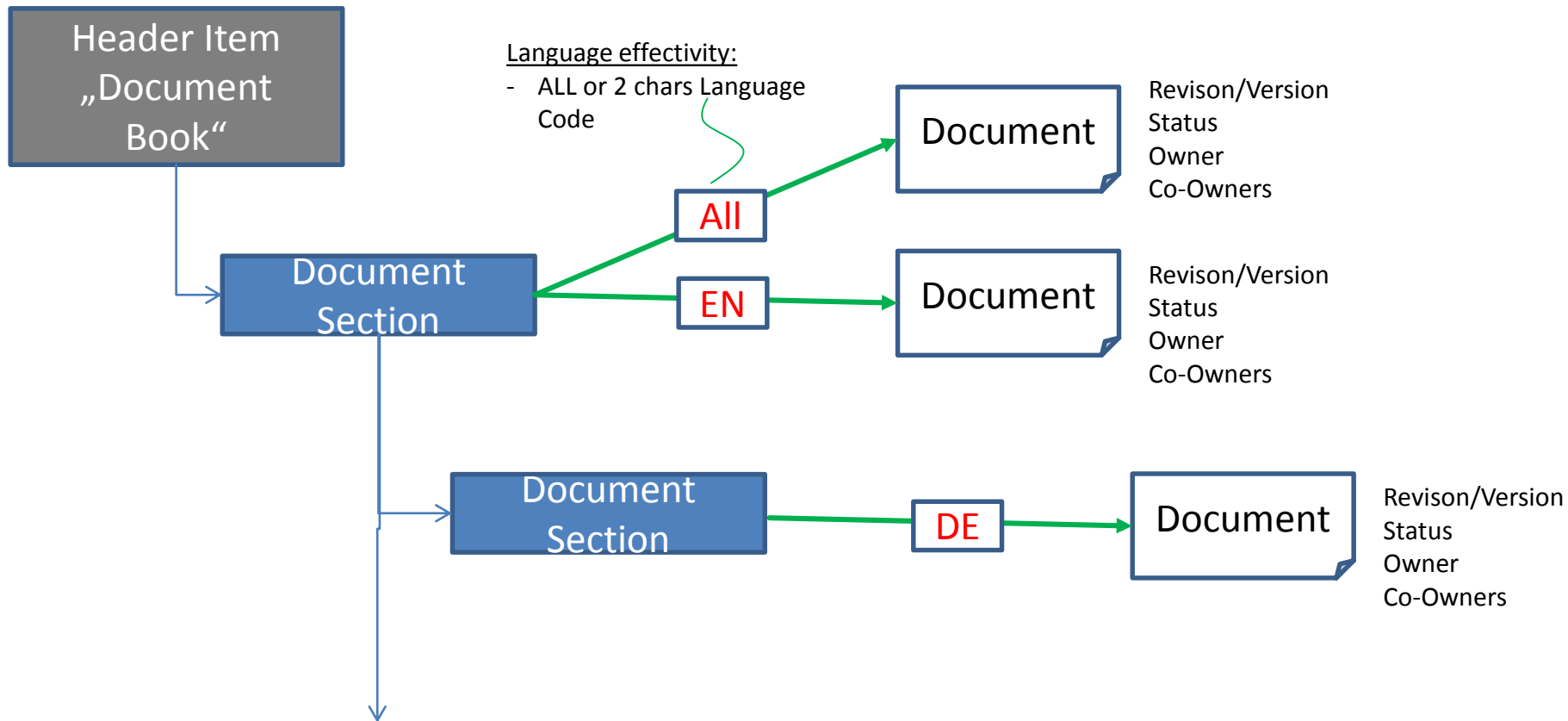
Name of the „dummy“ Item Type with prefix „TOCBK_“

Item_number of the (instance) item of Document Book to show from TOC.

(Optional) You can add the „Rev of this item. To display a defined Rev of the Book on the TOC



Documents connected to Sections with Language effectivity



If Book is viewed from TOC view, then the user's current language code is used to filter which language specific documents to show

Data Model

TOC Access:

- Administrators
- Document Collection Management

Can Add:

- Administrators
- Document Collection Management

Key properties:

- name (required)
- description
- owned_by_id (required) (logic: auto copy to top nodes & hierarchy)
- managed_by_id (logic:auto copy to top nodes & hierarchy)
- team_id (logic:auto copy to top nodes & hierarchy)

Document Book

versionable (Default Revs)
Name: required
Permission: Document Collection New

Relationship View (Form): Document Hierarchy Grid

Document Book Hierarchy

Prog. TreeGrid

Tab: Document Hierarchy

Float/Fixed on Release

Document Book DocSection

Tab: Top Sections

Document Section

versionable (Default Revs)
Short Name: required
Name: required
Permission: Document Hierarchy
New

Float/Fixed on Release

Document Hierarchy

Tab: Sub Nodes

Key properties:

- short_name (required)
- name (required) – multi-language
- description
- header_item_type (logic:auto copy to child nodes)
- header_item_id (logic: auto copy to child nodes)
- header_item_name (logic: auto copy to child nodes)
- owned_by_id (required)
- managed_by_id
- team_id
- has_sub_sections
- has_documents

Relationship View (Form): Document Hierarchy Grid

Document Hierarchy View

Prog. TreeGrid

Tab: Hierarchy Navigator

Float/Fixed on Release

Document Section Document

Tab: Documents

Variable

Name: „TOCDBK_TOC
Quality Handbook“
Value: <item_number> of
Document Book

TOC View (Form): TOC Quality Handbk Grid

Prog. TreeGrid

TOC Quality Handbook

Non versionable
Name:
Permission: Document
Hierarchy TOC Items

TOC Access:

- All Employees

Variable

Name: „TOCDBK_TOC
Sales Handbook“
Value: <item_number> of
Document Book

TOC View (Form): TOC Sales Handbk Grid

Prog. TreeGrid

TOC Sales Handbook

Non versionable
Name:
Permission: Document
Hierarchy TOC Items

TOC Access:

- All Employees

Add new „dummy“ TOC
Item Type for direct
access to an instance of
a „Document Book“

File

Key properties:

- filename
- file_type
- file_type_small_icon
- file_type_large_icon

Document

versionable (Default Revs)
Item_number:
Name: required
Permission: Document New

Key properties:

- published_file_type
- published_file_type_icon
- item_number (required)
- name (required)
- description
- major_rev
- owned_by_id (required)